BINDER CONTENT OF HOT MIX ASPHALT BY THE IGNITION METHOD ITM 586

APPARATUS

[ ] Ignition Oven
- [ ] Forced air ignition furnace capable of maintaining a temperature of 1100 ± 9°F
- [ ] Equipped with an internal balance, thermally isolated from the oven chamber, able to measure up to 6000 g. Documentation of annual calibration in accordance with ITM 910 available
- [ ] Chamber dimensions adequate to accommodate sample size of 3500 g
- [ ] Door locks until completion of test
- [ ] Method for minimizing furnace emissions provided
- [ ] Oven vented into hood or to outside
- [ ] Oven has fan capable of pulling air through furnace
- [ ] Oven has an automatic shut off that can be set at 0.01% of the sample weight
- [ ] Oven has an alarm to indicate when test is complete

[ ] Sample baskets made of heat resistant screen mesh with openings of approximately 0.1 in. Multiple baskets may be nested one on top of the other

[ ] Catch pan of sufficient size to hold the sample basket(s)

PROCEDURE

[ ] Lab oven heated to 221 ± 9°F

[ ] Stability threshold of ignition oven set at 0.01 percent mass loss for three minutes. Stability threshold value recorded.

[ ] Lift on ignition scale is set as required by manufacturer

[ ] Ignition oven preheated to test temperature and temperature recorded

[ ] Mix calibration factor in percent at the specified temperature is recorded

[ ] Sample dried to constant weight in accordance with ITM 572

[ ] Sample meets the following requirements:

Mixture Designation	Minimum Sample Weight, g
4.75 mm	1200
9.5 mm	1200
12.5 mm	1500
19.0 mm, C19.0 mm	2000
25.0 mm, C25.0 mm	3000
37.5 mm	4000

[ ] If sample size exceeds capacity of ignition oven, sample is reduced in accordance with ITM 587

[ ] Weight of ignition oven basket assembly measured using an external balance and recorded
- [ ] Bottom basket placed inside catch pan
- [ ] An equal portion of sample placed in each of the ignition oven baskets as they are stacked. Sample spread evenly over bottom of each basket and there is a 1 in. border between the edge of the sample and the side of the basket
- [ ] Lid and guards are attached to oven basket
- [ ] Weight of ignition oven basket assembly with sample is measured using an external balance and recorded
- [ ] Weight of sample determined by:

$$\text{Weight(g)} = (\text{weight of basket assembly(g)} + \text{sample(g)}) - \text{weight of basket assembly(g)}$$

- [ ] Calibration factor and weight of sample(g) entered into ignition oven computer
- [ ] Ignition oven basket assembly and sample placed in ignition oven
- [ ] Sample burned in ignition oven until oven shuts off automatically
- [ ] Basket assembly removed from the oven, placed on firm heat resistant surface, covered with protective cage, and allowed to cool to room temperature
- [ ] Oven ticket removed from ignition oven and calibrated binder content recorded to nearest 0.01%

NA - Not Applicable
X - Requires Corrective Action
√ - Satisfactory

_____
Acceptance Technician

_____ _____
INDOT Date

Comments _____

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